

Element Materials Technology - Fort Wayne 328 Ley Rd. Fort Wayne, IN 46825 TEL: (260) 424-1622 FAX: (260) 424-9124 Website: www.element.com

May 29, 2020

Nickie Geros East Chicago Sanitary District 5201 Indianapolis Blvd East Chicago, IN 46312

TEL: 219-391-8466

FAX:

RE: #901

Dear Nickie Geros: Order No.: 20052219

Element Materials Technology - Fort Wayne received 2 sample(s) on 5/22/2020 for the analyses presented in the following report.

In accordance with your instructions, Element Materials Technology Indiana conducted the analysis shown on the following pages on samples submitted by your company. The results relate only to the items tested. Unless otherwise noted, all analysis was conducted using approved methodologies from EPA, SM, or other client-specified methods. All relevant sampling information is on the attached chain-of-custody form. The initials SUB as the analyst designate any testing sub-contracted by Element Materials Technology Indiana.

This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Samantha K. Packard

Project Manager

328 Ley Rd.

Fort Wayne, IN 46825

Original Page 1 of 5



 ${\it Element\ Materials\ Technology\ - Fort\ Wayne}$

328 Ley Rd.

Fort Wayne, IN 46825

TEL: (260) 424-1622 FAX: (260) 424-9124 Website: www.element.com **Analytical Report**

Collection Date: 5/21/2020 9:21:00 AM

Matrix: WASTEWATER

(wastewater)

WO#: **20052219**

Date Reported 5/29/2020

CLIENT: East Chicago Sanitary District

Project: #901

Lab ID: 20052219-001

Client Sample ID #901

Sample Location:

| Analyses | Result | RL Qu | al Units | DF PL | Date Analyzed |
|----------------------------|-------------|--------|----------|----------|-----------------------|
| CYANIDE AVAILABLE BY LIGA | ND EXCHANGE | | OIA | -1677-09 | Analyst: AN |
| Cyanide, Available | 0.30 | 0.0020 | mg/L | 1 | 5/26/2020 1:31:27 PM |
| OIL AND GREASE, TOTAL | | | E | 1664 | Analyst: HF |
| Oil & Grease, Total | 6.1 | 5.0 | mg/L | 1 50.0 | 5/27/2020 12:52:50 PM |
| SV COMPOUNDS FOR CATEGO | ORICAL RQTS | | ļ | E625 | Analyst: SF |
| Bis(2-ethylhexyl)phthalate | < 0.10 | 0.10 | mg/L | 10 0.16 | 5/28/2020 5:27:00 PM |

PL Permit Limit

RL Reporting Detection Limit



 ${\it Element\ Materials\ Technology\ -\ Fort\ Wayne}$

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(wastewater)

WO#: **20052219**

Date Reported 5/29/2020

Collection Date: 5/21/2020 9:21:00 AM

Matrix: WASTEWATER

CLIENT: East Chicago Sanitary District

Project: #901

Lab ID: 20052219-002

Client Sample ID #901

Sample Location:

| Analyses | Result | RL Qu | al Units | DF PL | Date Analyzed |
|--|--|--|------------------------------|--|--|
| FLUORIDE | | | E | 300.0 | Analyst: HN |
| Fluoride | 1.3 | 0.5 | mg/L | 5 2.9 | 5/22/2020 6:14:00 PM |
| CHEMICAL OXYGEN DEMAND | | | M | 5220 D | Analyst: ANS |
| Chemical Oxygen Demand | 575 | 10.0 | mg/L | 1 | 5/26/2020 10:41:00 AM |
| AMMONIA AS N | | | E | 350.1 | Analyst: JGB |
| Nitrogen, Ammonia (As N) | 47.5 | 1.00 | mg/L | 10 77.0 | 5/27/2020 2:23:00 PM |
| PHENOLICS IN WASTEWATER | | | E | 420.1 | Analyst: ANS |
| Phenolics, Total Recoverable | < 0.050 | 0.050 | mg/L | 2 0.700 | 5/26/2020 4:24:16 PM |
| TOTAL PHOSPHORUS | | | M4 | 500-P F | Analyst: HN |
| Total Phosphorus | 0.776 | 0.050 | mg/L | 1 5.50 | 5/26/2020 8:00:34 PM |
| TOTAL SUSPENDED SOLIDS | | | M | 2540 D | Analyst: NB |
| Suspended Solids (Residue, Non-Filterable) | 253 | 31 | mg/L | 1 | 5/26/2020 2:24:00 PM |
| MERCURY | | | E | 245.1 | Analyst: FJR |
| Mercury | 0.00018 | 0.00010 | mg/L | 1 | 5/28/2020 2:10:48 PM |
| METALS IN WATER BY ICP-MS, TO | TALS | | E | 200.8 | Analyst: FJR |
| Arsenic Chromium Copper Lead | 0.00800 0.00849 0.00827 0.00143 | 0.00020 0.00040 0.00020 0.00020 | mg/L mg/L mg/L mg/L | 1 0.500 1 0.282 1 0.301 1 0.224 | 5/28/2020 1:00:32 PM 5/28/2020 1:00:32 PM |

Qualifiers: H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response

PL Permit Limit

RL Reporting Detection Limit



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Matrix: WASTEWATER

CLIENT: East Chicago Sanitary District

Project: #901

Lab ID: 20052219-002

Client Sample ID #901

Sample Location:

| Analyses | Result | RL Qu | al Units | DF | PL | Date Analyzed | | | | |
|------------------------|--------------|---------|----------|--------|-------|----------------------|--|--|--|--|
| METALS IN WATER BY ICP | P-MS, TOTALS | | i | E200.8 | | Analyst: FJR | | | | |
| Molybdenum | 0.0359 | 0.00020 | mg/L | 1 | 0.200 | 5/28/2020 1:00:32 PM | | | | |
| Nickel | 0.0109 | 0.00100 | mg/L | 1 | 0.390 | 5/28/2020 1:00:32 PM | | | | |
| Zinc | 0.117 | 0.00040 | mg/L | 1 | 1.48 | 5/28/2020 1:00:32 PM | | | | |

PL Permit Limit

RL Reporting Detection Limit

|--|

| Chain of Custody | S-901 Composite | S-901 Co | S-901 Co | S-901 Co | S-901 Grab | S-901 Grab | S-901 Grab | Sample ID/Description | | □RECAP/RISC | □USDA/FDA | □NPDES | POTW | □RCRA | Which Regulations Apply: | E-mail Address: | Fax Number: | Phone Number: | City, State Zip: | | Address: | Contact Name: | Company Name: |) | |
|--|-----------------|-----------|-----------|-----------|------------|--------------|------------|-----------------------|------------------|-------------|-------------------|------------------|-----------------|-----------------|--------------------------|---|--|------------------|------------------|--------------|-------------------|---------------|------------------|--------------------|-------------------|
| Chain of Custody Chain of Custody Main Composite Composit | mposite | Composite | Composite | Composite | ab | ab | ab | scription | × | □Other | State | ☐Special | □ Distribution | □Drinking Water | itions Apply: | ngeros@eastchicago | | 219-391-8466 | East Chicago | | 5201 Indianap | Nickie Geros | Γ | Client Information | element" |
| Chain of Custody Chain of Custody | | | | | | | 5-21-29 9: | | Collection | | | | | 5 TAT | Turn Time | .com | | Ext. 240 | IN 46312 | | olis Blvd | | nitary District | :: | |
| Chain of Custody Chain of Custody | | | | | | | 21 | ime | Inforn | | | | | | | | | | | | | | S | 00 | |
| In Container Container Project Name/Number: Sampler's Signature Sampler's Signature Sampler's Signature O O O O O O O O O | Comp | Comp | Comp | Comp | Grab | Grab | Grab | Grab / Composite | nation | lab.) | approved | must be p | surcharge | will incur | (Rush tur | | | | | | | | ame | lling Infor | 0 |
| Laboratory Number: Project Name/Number: Sampler's Signature Sampler's Signature Shipping Method: Pede Shipping Method: Shipping Method: Shipping Method: Pede Shipping Method: Number: Page 1 DW = Drinkin WW = Waste GW = Groun AQ = Aqueou OT = Other SL = Sludge O = Oil F = Food NG = Natura Samp Accepta Yes *As, Cr. Matrix Co DW = Drinkin WW = Waste GW = Groun NG = Natura Samp Accepta Yes *As, Cr. Mo, Ni, I | ₩ | W | WW | WW | W | W | WW | Matrix | | | by | Уřе | and | מ | n times | | | | | | | | | mation: | hain |
| Laboratory Number: Project Name/Number: Sampler's Signature Sampler's Signature Shipping Method: Pede Shipping Method: Shipping Method: Shipping Method: Pede Shipping Method: Number: Page 1 DW = Drinkin WW = Waste GW = Groun AQ = Aqueou OT = Other SL = Sludge O = Oil F = Food NG = Natura Samp Accepta Yes *As, Cr. Matrix Co DW = Drinkin WW = Waste GW = Groun NG = Natura Samp Accepta Yes *As, Cr. Mo, Ni, I | 2 | _ | _ | _ | _ | _ | _ | Qı | ıan | antity | | | | | င္ဝ | | | Ext: | | | | | | | of C |
| Laboratory Number: Project Name/Number: Sampler's Signature Sampler's Signature Shipping Method: Pede Shipping Method: Shipping Method: Shipping Method: Pede Shipping Method: Number: Page 1 DW = Drinkin WW = Waste GW = Groun AQ = Aqueou OT = Other SL = Sludge O = Oil F = Food NG = Natura Samp Accepta Yes *As, Cr. Matrix Co DW = Drinkin WW = Waste GW = Groun NG = Natura Samp Accepta Yes *As, Cr. Mo, Ni, I | ס | ര | ס | Р | G | G | ٦ | Typ P= G= | pe Pla Gla | stic | , V= | ·Via | al | | ntainer | | | | | | | | | | ustod |
| Laboratory Number: Project Name/Number: Sampler's Signature Sampler's Signature Shipping Method: Pede Shipping Method: Shipping Method: Shipping Method: Pede Shipping Method: Number: Page 1 DW = Drinkin WW = Waste GW = Groun AQ = Aqueou OT = Other SL = Sludge O = Oil F = Food NG = Natura Samp Accepta Yes *As, Cr. Matrix Co DW = Drinkin WW = Waste GW = Groun NG = Natura Samp Accepta Yes *As, Cr. Mo, Ni, I | NONE | H2SO4 | H2SO4 | HNO3 | NONE | H2SO4 | NAOH | HC | l, H | NO | 3. F | H₂S | 3O ₄ | 1, | Pres. | □ No | □Yes | Bill Monthly | | Required Q | | Quote Num | | PO Numbe | V |
| Laboratory 200 Sampler's Signature Project Name/Number: Sampler's Signature Shipping Method: Shipping Method: Number: Sampler's Signature Page Completed Tests Completed | | | | | | | × | CY | ΆΝ | ۱ID | E 1 | 67 | 77 | | | | | | | C Lev | | ber: | | | 3 |
| Laboratory Number: S-901 Page 1 c Matrix Co Matrix | _ | | | | | × | | Oil | & G | irea | se T | ota | al —— | | | | | | | <u>e</u> | | | | | |
| aboratory | + | - | | | × | | | Bis | (2E | H) P | hth | ala | te | 4 | 20 | 모 | | Ship | ţ | _ | Sam | | | Proj | 000 |
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| Waste Ground Value ou Other Ridge I Comple Comple Comple Yes, Cr, Ni, S, Cr, Ni, S, Cr, Ni, S, Cr, S | × | | | | | | | TS | S | | | | | | | Mail | 9 | | | | | | | | 6 |
| Hg, Solicy Page 5 of | | | | | 104.4:0 | 18 45 0 most | | Mo, Ni, Zn, & Hg | *As, Cr, Cu, Pb. | | Acceptance Police | Accordance Delic | Samples Meet | Commission | Commente | PW = Produced Water CF = Completion Fluid | NGL = Natural Gas Liquid | 2 2 | | AQ = Aqueous | GW = Ground Water | 4 | x Code | of | 612250 6122500 |

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

8800 North US 31 Columbus, IN 47201 USA P 812-375-0531 F 812-375-0731

2

Relinquished by

Date/Time

Received by

Date/Time

End Date/Time: 5-22-20 8:37

Start Date/Time: 3-21-20 9:2/

Composite Sampler:

Received at lab on ice?

]Yes □No

Temp:

2

5.22.20

1620

328 Ley Road, Suite 100 Fort Wayne, IN 46825 USA P 260-471-7000 F 260-471-7777

909 Executive Dr. Warsaw, IN 46580 USA P 574-267-3305 F 574-269-6569

3371 Cleveland Road, Suite 100A South Bend, IN 46628-9780 USA P 574-277-0707

2417 W. Pinhook Rd Lafayette, LA 70508-3344 USA P 337-235-0483 F 337-233-6540